

**A NEW SPECIES OF TYPHLODROMUS NEAR *T. BAKERI* (GARMAN)
AND A CONSIDERATION OF THE OCCURRENCE OF *T. RHENANUS*
(OUD.) IN CALIFORNIA**

(ACARINA, PHYTOSEIIDAE)

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Two species resembling *Typhlodromus rhenanus* (Oud.) and *T. bakeri* (Garman) have been recognized in central California. Until Dosse described and illustrated the spermathecae or coxal glands of these species it was impossible to determine the status of the two species occurring here. On the basis of his publication it now appears that (1) *T. rhenanus* is probably represented in California although differing from European specimens in numerous minor characters, and (2) the second species is closely related to *T. bakeri* but is undescribed.

***Typhlodromus* (T.) *caudiglans*, n. sp.**

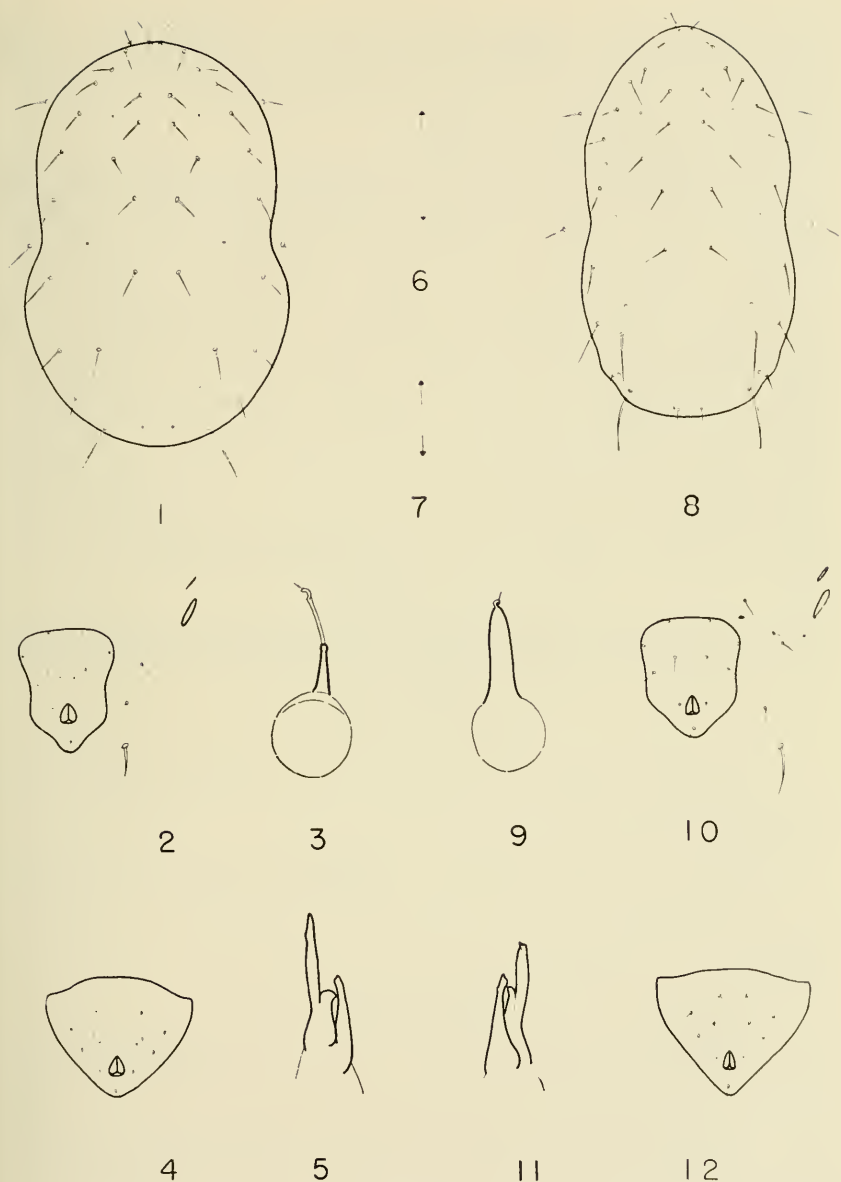
Female.—Dorsal shield 353 μ long x 228 μ wide (fig. 1); off-white; reticulate; 18 pairs of dorsal setae, 10 pairs marginal; M2 paired with L8; approximate lengths of setae in microns are: S1 29, S2 25, L1 24, L2 21, L3 24, L4 27, L5-7 29, L8 9 28, L10 53, M1 19, M2 31, D1 25, D2 16, D3 17, D4 18, D5-6 11; fixed member of chelicera with 4 teeth; movable member slightly shorter than fixed, ramus with a single tooth; sternal shield indistinct, bearing 2 pairs of setae (the 3rd pair possibly contiguous with the posterior extension of the shield); metapodal plates indistinct, 4 or 5 times the area of the setal insertions; peritreme extending forward past base of seta L1 (indicated by arrow on fig. 1); ventrianal shield lacking wrinkles or patterns, with 4 pairs of preanal setae and a pair of small pores; 4 pairs of setae on membrane surrounding ventrianal shield (fig. 2); 2 pairs of parapodals, the anterior pair minute; leg IV lacking macroseta, the setae present not set on tubercles; coxal gland of characteristic shape (fig. 3).

Male.—Chelicera as illustrated (fig. 5); ventrianal shield with 4 pairs of preanal setae and a pair of pores (fig. 4).

Immature stages.—Unknown.

The type is from Davis, Yolo County, California, collected IX-23-57 by R. O. Schuster and is deposited in the California Academy of Sciences. Twenty-four female and 9 male paratypes are also from Davis, collected between June and August, 1957 by Leslie M. Smith and R. O. Schuster. Other specimens have been recorded from Contra Costa, Napa and San Joaquin Counties. Most of these mites have been collected in association with eriophyids. They have been collected from a variety of plants including grape, olive, pear, peach, plum and walnut.

T. caudiglans superficially resembles *T. rhenanus* but the true relationship to *T. bakeri* is apparent in the form of the coxal gland. The neck of this gland is narrower in *T. caudiglans* which further differs from *T. bakeri* in the following characters: The anterior parapodals are nearly obsolete, the setal insertions are normal, the ventrianal



T. caudiglans, n. sp. Fig. 1, dorsal shield of female; fig. 2, ventrianal shield and associated setae; fig. 3, coxal gland; fig. 4, ventrianal shield of male; fig. 5, male chelicera; fig. 6, 100.8 microns, scale for illustrations of shields; fig. 7, 16.9 microns, scale for coxal glands and chelicerae. *T. rhenanus* (Oud.). Fig. 8, dorsal shield of female; fig. 9, coxal gland; fig. 10, ventrianal shield; fig. 11, male chelicera; fig. 12, ventrianal shield of male.

shield has no pattern superimposed, and the movable digit of the chelicera has only a single tooth. The position of seta M2 in relation to L8 is not constant, M2 occasionally being posterior to L8. A pair of extremely minute pores occur on the ventrianal shield of *T. bakeri*. Those of *T. caudiglans* are larger.

The California specimens which presumably are *T. rhenanus* (Oud.) have been compared with specimens from Kent, England, loaned by Dr. D. A. Chant. They possess the coxal gland as illustrated by Dosse although this structure is usually a little larger in the California material. Specimens from the California population are further atypical in the lengths of setae L7, L8 and M2 which are longer and in L2 and L9 which are shorter. M2 is more closely associated with L8 and the dorsum has a number of small pores. Although this number of minor differences exists, the range of variability of either the European or California populations is not known and it seems unwise to consider the California form as a distinct species unless additional morphological characters are found or ecological observations indicate the existence of two species.

Illustrations of *T. rhenanus* are included: (1) to define the mite that is referred to as *T. rhenanus* in California, and (2) as an aid in distinguishing *T. caudiglans* which is superficially similar.

LITERATURE CITED

- Dosse, Von Gudo, 1958. Die Spermathecae, ein zusatzliches Bestimmungsmerkmal bei Raubmilben. Pflanzenschutz-Berichte 20(1/2):1-11.